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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NEWAY, SAMUEL G

ART UNIT

PAPER NUMBER

2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/659,792	Applicant(s) ABIR, ELI	
	Examiner SAMUEL G. NEWAY	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-41, 45-59 and 237-239 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 57-59 is/are allowed.
- 6) ☒ Claim(s) 30-41 and 237-239 is/are rejected.
- 7) ☒ Claim(s) 45-56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is responsive to the amendment after non-final filed on 20 November 2008.
2. Claims 30 – 41, 45 – 59, and 237 – 239 are pending and are considered below.
Claims 237 – 239 are new.

Response to Amendment

3. The claim objections are withdrawn in view of Applicant's amendments.

Response to Arguments

4. Applicant's arguments with respect to claims 30, 32 – 34, 36 – 38, and 40 – 44 have been considered but are moot in view of the new ground(s) of rejection.
5. Applicant's arguments with respect to claims 31, 35, and 39 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., overlapping portions are combined in a way that matches the phrases to yield a third candidate translation without application of any ordering rules) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 30, 32 – 34, 36 – 38, 40, 41, and 237 – 239 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grefenstette (“The World Wide Web as a Resource for Example-Based Machine Translation Tasks”, Proceedings of Translating and the Computer 21 Conference, London, UK, Nov. 1999) in view of Koehn et al (“Estimating Word Translation Probabilities from Unrelated Monolingual Corpora Using the EM Algorithm”, Proceedings of the Seventeenth National Conference on Artificial Intelligence and Twelfth Conference on Innovative Applications of Artificial Intelligence, pages 711-715, August 2000).

Claim 30:

Grefenstette discloses a method for creating a knowledge base of associated ideas comprising the steps of:

providing a translation of words expressed in a first language to words and/or strings of words expressed in a second language (“Oxford-Hachette French-English dictionary”, page 2, paragraph 2);

providing a corpus of documents expressed in said second language (“World Wide Web can be considered as extremely large corpus”, page 1, Introduction, paragraph 2);

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receiving a query to be analyzed, wherein said query is expressed in said first language, and wherein said query consists of string of words (“French noun phrase *groupe de travail*”, page 2, paragraph 2);

identifying for said query, all translations of each word comprising said word string query, to said second language utilizing said provided translation (“the French word *groupe* can be translated by the English words *cluster*, *group*, *grouping*, *concern* and *collective*”, page 2, paragraph 2);

analyzing said corpus of documents for word strings expressed in said second language (“AltaVista search portal allows the Web browser user to search ...”, page 3, paragraph 1), wherein said analyzing only identifies word strings having a user defined maximum number of words (page 3, Table 2 and related text. Note that in this case the maximum number is two since all word strings searched are composed of two words), and wherein said analyzing only identifies word strings having translations obtained from a user defined minimum number of words expressed in the first language in said identifying step (“French noun phrase *groupe de travail*...”, page 2, paragraph 2. Note the minimum number is two since the word strings corresponding to the French words *groupe* and *travail* are identified), wherein said analyzing only counts one of the possible translations for each of said words expressed in the first language (“Combining the possible translations ... into all twenty-one possible noun phrases”, page 3, paragraph 1); and

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returning a list of said word strings expressed in said second language from said analyzing said corpus of documents as word string results (page 3, Table 2 and related text).

However, Grefenstette does not explicitly disclose returning the list without regard for the combination or order in the second language strings of the second language words corresponding to translations of the works in the first language query.

In a similar natural language machine translation method, Koehn discloses returning a list of word strings expressed in a second language from analyzing a corpus of documents as word string results without regard for the combination or order in the second language strings of the second language words corresponding to translations of the works in a first language query (page 713, col. 1, table on top and related text).

It would have been obvious to one with ordinary skill in the art at the time of the invention to have returned Grefenstette's list without regard for the combination or order in the second language strings of the second language words corresponding to translations of the works in a first language query in order to take into account the syntactic form of compounds in the second language or in other words to take into account the fact that the order of words in the second language may be different than the order of their translations in the second (see Koehn page 712, col. 2, section 4).

Claim 32:

Grefenstette and Koehn disclose the method of claim 30, Grefenstette further discloses where a word expressed in a first language includes certain word strings in

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the first language such as idioms, fixed-phrases, and other collocations (“French noun phrase *groupe de travail*”, page 2, paragraph 2).

Claim 33:

Grefenstette and Koehn disclose the method of claim 30, Grefenstette further discloses ranking said list of word string results based on user-defined criteria (page 3, Table 2 and related text).

Claim 237:

Grefenstette and Koehn disclose the method of claim 30, Grefenstette further discloses where the returned word strings in said second language are ranked by minimal number of words that are not translations of the words in the input query string (page 3, Table 2 and related text. Note that in this case the minimal number is zero for all input query string).

Claims 34, 36, 37 and 238:

Computer device claims 34, 36, 37 and 238 and method claims 30, 32, 33 and 237 are related as device and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claims 34, 36, 37 and 238 are rejected with the same rationale as applied above with respect to method claims 30, 32, 33 and 237.

Claims 38, 40, 41 and 239:

Grefenstette and Koehn disclose the method of claims 30, 32, 33 and 237; Grefenstette further discloses a computer readable storage medium storing a program

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for performing the steps of the method claims (page 2, second paragraph. Note that a memory is inherent in a computer used for the machine translation).

8. Claims 31, 35, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grefenstette ("The World Wide Web as a Resource for Example-Based Machine Translation Tasks", Proceedings of Translating and the Computer 21 Conference, London, UK, Nov. 1999) in view of Koehn et al ("Estimating Word Translation Probabilities from Unrelated Monolingual Corpora Using the EM Algorithm", Proceedings of the Seventeenth National Conference on Artificial Intelligence and Twelfth Conference on Innovative Applications of Artificial Intelligence, pages 711-715, August 2000) and in further view of Tominaga (USPN 5,311,429).

Claim 31:

Grefenstette and Koehn disclose the method of claim 30, Grefenstette further discloses wherein said word strings expressed in said second language have at least a first portion and a second portion, and wherein said list represents associations of said query in said first language to expressions in said second language (page 3, Table 2 and related text), but Grefenstette and Koehn do not explicitly disclose examining said list of returned word string results for occurrences wherein any two said returned word string results have overlapping said first and second portions; combining all of said two overlapping returned word strings into third word strings, wherein said third word strings are a combination of said first word strings and said second word strings, merging said

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overlapped words; and adding all said third word strings to said list of said word string results.

In a similar language processing method used for translations, Tominaga discloses examining a list of word string (sentences) for occurrences wherein any two word strings have overlapping first and second portions; combining all of the two overlapping returned word strings into third word strings, wherein said third word strings are a combination of the first word strings and the second word strings, merging the overlapped words(col. 14, lines 42-61; Fig. 14 and related text); and adding all the third word strings to a list (sentence file, Fig. 2, element 1 and related text) of said word string results.

It would have been obvious to one with ordinary skill in the art at the time of the invention to generate new translation candidates by combining word strings with overlapping portions in Grefenstette and Koehn's method in order to "easily perform maintenance of information about co-occurrence relation in dictionary information" (Tominaga, col. 2, lines 30-34).

Claim 35:

Computer device claim 35 and method claim 31 are related as device and the method of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 35 is rejected with the same rationale as applied above with respect to method claim 31.

Claims 39:

Grefenstette and Koehn disclose the method of claim 31; Grefenstette further discloses a computer readable storage medium storing a program for performing the steps of the method claim (page 2, second paragraph. Note that a memory is inherent in a computer used for the machine translation).

Allowable Subject Matter

9. Claims 45 – 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 57 – 59 are allowed.

11. The following is an examiner's statement of reasons for allowance: the prior art of record, individually or in combination, does not disclose using two different corpus and identifying word strings in a first list as subset of word strings in a second list as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMUEL G. NEWAY whose telephone number is (571)270-1058. The examiner can normally be reached on Monday - Friday 8:30AM - 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

/S. G. N./
Examiner, Art Unit 2626